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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,740	03/01/2004	Daxiong Ji	967AAF	6104
7590	07/28/2005			
Kevin Redmond 6960 SW Gator Trail Palm City, FL 34990			EXAMINER GLENN, KIMBERLY E	
			ART UNIT 2817	PAPER NUMBER

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/788,740

Applicant(s)

JI, DAXIONG

Examiner

Kimberly E. Glenn

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-20 is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-17 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

The drawings are objected to because in figure 1-- Prior Art-- is spelled incorrectly. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

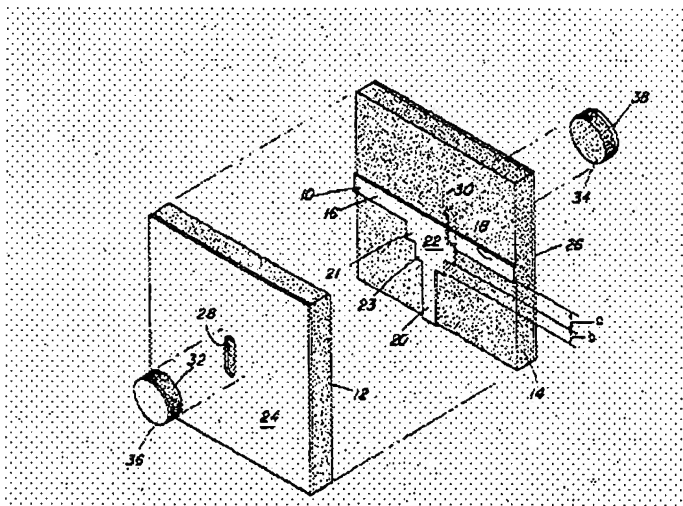
Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

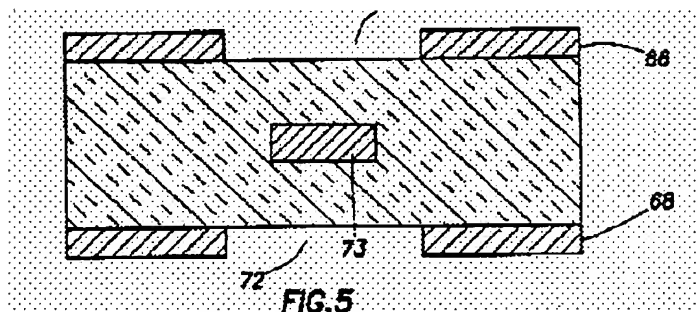
Claims 1, 4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plunk et al US Patent 3,815, 055 in view of Wright et al US Patent 6,624,729.

Plunk et al discloses in the figure, a stripline power divider comprising a center conductor circuit 10 disposed within a dielectric material, such material here made up of two sections 12, 14. The two sections of dielectric material are considered the first and second printed circuit board. The circuit 10 is formed of a conducting material (copper) and is deposited or printed a portion of one of the sections of the dielectric material. Circuit 10 includes three center conductors or arms 16, 18, 20, one end of each of the arms being connected or joined at a common junction 22 and the other end of each of the arms being coupled to suitable connecting terminals. Examiner considers conductor 16 to be the first circuit line, conductor 18 to be the second circuit line, and conductor 20 to the output port. Each of the dielectric material section has one surface covered by conductive material (copper). The conductors 16, 18 and 20 are connected to a common junction (common line) 22.



Thus, Plunk et al is shown to teach all the limitation of the claims with the exception of the metallized area having a plurality of unmetallized voids.

Wright disclose in figure 1, a trace disposed in a dielectric layer and flanked on the top and the bottom by conductive layers 66, and 68. Each of the conductive layers has an array of windows. The windows are located symmetrically with respect to traces 73. The characteristic impedance of the line depends on the dimension of the slots (windows) and the spacing between the slots. ^{col} 16, ^{lines} column 34-43 and column 5 lines 29-34)



One of ordinary skill in the art would have found to obvious to replace to general conductive materials of Plunk et al with the conductive layers having an array of windows as taught by Wright et al. The motivation for this modification would have been to control the impedance of the conductors.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

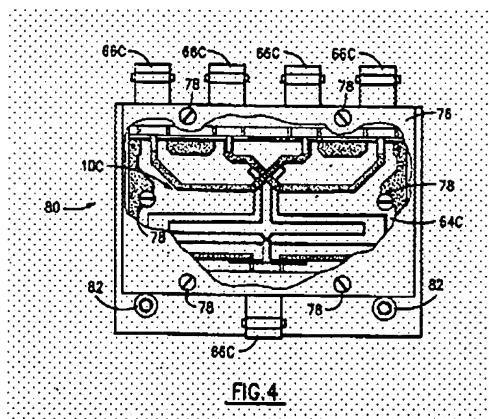
Claims 2, 3, 5, 8-10 and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plunk et al US Patent 3,815, 055 in view of Wright et al US Patent 6,624,729 in view of Gustafson US Patent 5,021,755.

See the above rejection of claims 1, 4, 6 and 18 for details of the Plunk et al and the Wright et al references.

Thus, Plunk et al and Wright et al are shown to teach all the limitation of the claims with the exception of the divider being mounted in a case, the first and second metallic sheets are connected to the case and a plurality of fasters hold the first and second dielectric layers in the case.

With regards to claims 9 and 10, apparatus patentability depends on whether it is known in the art or it is obvious in the art and is not governed by the process by which it is made.

Gustafson disclose in figure 4, a splitter (divider) disposed in a housing 76 (case). The splitter circuit board is mounted in the housing using mounting hardware 78.



One of ordinary skill in art at the time of the invention would have found to obvious to place the divider of Plunk et al in the housing as taught by Gustafson. When the dielectric layers of Plunk et al are placed in the housing by the mounted hardware. The conductive material will be connected to the case. The motivation for this modification would have been the provided the advantageous benefit of circuit protection from environmental factors (dust, water etc).

Allowable Subject Matter

Claims 18-20 are allowed.

Claims 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: With regard claims 18-20, the prior art of record does not disclose or fairly teach monitoring the amplitude unbalance of the combiner.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shapiro et al US Patent 5,001,492, Anderson et al US Patent 5,909,155 and Kaylie et al US Patent 6,790,049.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly E. Glenn whose telephone number is (571)-272-1761. The examiner can normally be reached on Monday-Friday 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

keg

Kimberly E Glenn
Examiner
Art Unit 2817


BENNY T. LEE
PRIMARY EXAMINER
ART UNIT 2817